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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/550,552

08/01/2006

Kakuhei Isawa

Q90515

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65565 7590 08/12/2010  
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EXAMINER

WILLIAMS, LELA

ART UNIT

PAPER NUMBER

1787

NOTIFICATION DATE

DELIVERY MODE

08/12/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

SUGHRUE265550@SUGHRUE.COM  
USPTO@SUGHRUE.COM  
PPROCESSING@SUGHRUE.COM

<b>Office Action Summary</b>	<b>Application No.</b> 10/550,552	<b>Applicant(s)</b> ISAWA ET AL.	
	<b>Examiner</b> LELA S. WILLIAMS	<b>Art Unit</b> 1787	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/1/2006, 6/7/2010</u> .                                      | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claim 21** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim depends from claim 13 which is directed to two methods and claim 21 does not state which method is being used.

3. Claim 21 also recites the limitation “the processes”. There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 12-15, 18 19, 21, 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. WO 03/016544 (US 7,374,915 is relied upon for translation) as evidenced by Sukajang et al., *Effects of sodium ascorbate and drying temperature on active protease of dried ginger*.**

**Regarding claims 12-15, 18 19, 22,** Sato discloses a composition wherein sodium ascorbate, an antioxidant, and a solution containing DHNA are added to raw milk. The sodium

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ascorbate antioxidant will naturally reduce oxygen (see evidence provided by Sukajang, p. 54, 2<sup>nd</sup> paragraph) dissolved in the milk, thereby stabilizing the 1,4-dihydroxy-2-naphthoic acid. The milk is then heat treated and packaged (col. 10, lines 35-40).

**Regarding claim 21**, given that the oxygen is reduced, it is naturally reduced under condition for reducing oxygen.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**9. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. US 7,374,915 in view of Davies et al., 2,104,415.**

Sato is applied as discussed above. Sato does not teach the use of an inert gas to reduce oxygen. Davies discloses a process for the preservation of fruit juice wherein the “juice is deoxygenated and pasteurized to thereby rid the juice of its free oxygen content and to destroy the mold, yeast, and bacteria present” (p.1, c.2, l. 35-40). Page 2, column 1, lines 9-11 clearly teaches the oxygen is reduced during the heat treatment. Davies further discloses a three container apparatus wherein the first container “is heated to the temperature of pasteurization while the second and third containers may be heated to progressively lower temperatures” (p.2, c. 2, l.40-42). The gas which is fed into the first container also passes to the other containers to absorb oxygen (p.2, c. 2, lines 49-55). It is known that pasteurization is a process of heat treatment and it is known that the pasteurization process is carried out at specific temperatures, and given the disclosure of the other two container being set at “progressively lower temperatures”, it is obvious that the juice is only heat treated/pasteurized in the first container and not the second and third containers. Therefore it is obvious the oxygen is continued to be dissolved after the heat treatment by the gas which is streamed into containers two and three. One of ordinary skill in the art would have been motivated to reduced the amount of dissolved oxygen in the milk product of Sato by running an inert gas through the product both during and after heat treatment, as explained by Davies, in efforts “to destroy the mold, yeast, and bacteria

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present therein in order to prevent oxidation of the juice and the growth of mold.”(p.1,c2, l.35-41)

**10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. US 7,374,915 in view of Mizandjian et al. US 4,766,001.**

Sato is applied as discussed above. Sato does not teach the use of an inert gas to reduce oxygen. Mizandjian discloses a process for treating a food or biological liquid with a gas, such as nitrogen and carbon dioxide, to dissolve oxygen (abstract). Given Mizandjian’s teaching, it would have been obvious to one of ordinary skill in the art to use an inert gas in the solution of Sato, in order to reduce the oxygen content in efforts to reduce the growth of microorganisms and extend shelf life for the milk product.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LELA S. WILLIAMS whose telephone number is (571)270-1126. The examiner can normally be reached on Monday to Thursday from 7:30am-5pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LELA S. WILLIAMS/  
Examiner, Art Unit 1787

/L. S. W. /

/Callie E. Shosho/  
Supervisory Patent Examiner, Art Unit 1787